

# Window to the Sun

SOLAR TERRESTRIAL PROBES/LIVING WITH A STAR

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## Massachusetts Star Partner Happenings Northeast Museum Outreach and Regional Event

How do you include STP/LWS E/PO objectives into a 'Science of Robotics' theme? You provide hands-on activities that complement the theme and inspire all ages to learn!

On February 24, 2005, the Springfield (MA) Museums hosted a 'Robots in Action' demonstration, presented by local middle school, high school and college robotics teams. As part of her effort to continue the alliance with the Springfield Museums, Dr. Mary Allen arranged to have the LWS Northeast Region Star Partners engage the Museum visitors in LWS-related themes.

That's exactly what the motivated group of Star Partners accomplished by hosting families in many sun-related activities: Families learned about simple machines and carbon-dating. The children ate a delicious cookie model of the sun which they created. They made clay models of the Anasazi rock petroglyphs to take home. They delved into light and shadows at ancient observatories. Some



children were enthralled as they were read to from a series of books about mythology and the sun. They could then explore the Aztec sunstone and even make one out of clay! Families could share in studying constellations, and could make starfinders to continue their learning. Star Partners enticed the visitors with displays on

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field Museums had a record number of visitors....over 2,000 people! Although no exact count was made, rumor is that at least 800 people tried out the LWS activities!

#### The LWS Northeast



Region Star Partners completed the day by holding their first Regional Conference. Master Teachers Myriam Y. Ulloa-Skolnick, Andrea Hickson and Noreen Ewick organized materials for the meeting, and ensured that the agenda was adhered to.



To begin the Conference, the Star Partners discussed the day's Museum Outreach, which turned out to be a successful high-visibility event aligned with the STP/LWS E/PO Program objectives. Along with personal introductions, the agenda included updating individual members' LWS activities to date. Presenta-

tion boards highlighted LWS news and examples of requirements as a means of support for the new educators. Future plans were discussed, including hopes for more Regional Conferences. The most important accomplishment from the Regional Conference was the sense of networking and fellowship which the group hopes to continue.

archaeoastronomy and sun circles. An entertaining and informative PowerPoint presentation on the sun and ancient ruins united all the activities. Throughout the eventful day, there was hardly a moment to breathe as one family after another visited the Star Partners' displays. At the end of the Museum Outreach, it was no surprise to find out that the Spring-

## NASA Educators Workshop

It may have been 30 degrees and snowing in Westhampton, Massachusetts, but students at Hampshire regional High School were learning about the sun. The integrated unit was a part of the LWS program under the direction of Star Partner, Tara Kisiel. This is what WE did in our classroom. I teach 8th grade science on a team with three other teachers who have more seniority than me at the school. When I asked them if we could do an integrated unit, they said 'sure' with a little hesitation in their voices. With some ideas, typing, and many hours of thinking, we were able to run our integrated unit on the sun just after February vacation. One problem arose... the first day into the unit and there was no sun... the second day, we had no school because of snow! UUUGH-HHH! Fortunately, the sun came out for the remainder of the week, and with modifications, we made it all work!

"I ended up learning a lot more things about the sun than I would have in just one class"

So, what exactly did we do?

In social studies, the students are already studying about ancient cultures, so we focused on how the sun was viewed in ancient times. What was the importance way back then? Then, we went into an activity that researched different areas of the world and how the sun is used there. The students presented these orally to the class to share what they had learned.

In math, the students made a simulated sun with a flashlight, and worked on shadows. They used blocks to make their 'buildings' and measured the distances of the shadows from their simulated sun. In English, it was myth time. The

students read some myths about the sun and then wrote their own myth about the sun. Then it was on to Public Service announcements. In small groups, the students created a public service announcement that shared what they had learned about an aspect of the sun. "We made A game show about different ways to protect yourself from the sun" said Jamie (8th grader). Derek's group talked about skin cancer and how to prevent it.

In science, the activities started out with some basics on the sun including the make-up of it and its comparison with the Earth. Day

"We made a game show about different ways to protect yourself from the sun" said Jamie (8th grader)

two went into making spectrometers and viewing different types of light. Day three allowed us to actually go out into the sun and look at the sun with our special solar viewing glasses! WOW! "It was cool to

look at the sun!" said Ben. Day three allowed us to use our sun spotter and see the sun with

a different tool. The kids were all trying to figure out how they could make one. I guess the technology and engineering unit had sparked an interest! Day four was a culminating activity of what they had done in the unit.... How did they feel and what did they like? They liked it, and we are already, thanks to the sun, preparing the next integrated unit! "I learned a lot about the sun in everyday things we do"

"I ended up learning a lot more things about the sun than I would have in just one class" said Cate.



# Happenings in the Nation's Capital

## NASA Winter Educators Workshop

*Inspiring the Next Generation Through it's Teachers!*

"The presenter was wonderful – it was a great session!"

"Thank you – my students will love this activity!"

"This presentation was excellent and completely relevant to my work in the classroom"

How do you get K-12 teachers from the Washington, DC area to give up their valuable Saturday to attend a workshop? You tempt them with interesting, relevant sessions and the opportunity to network with 90 other teachers who are passionate about using science in their classrooms.

The STP/LWS In Service Professional Development Workshop was held on January 29th and featured our associate director Gil Colon as the plenary speaker!

The morning sessions engaged elementary teachers to use art to

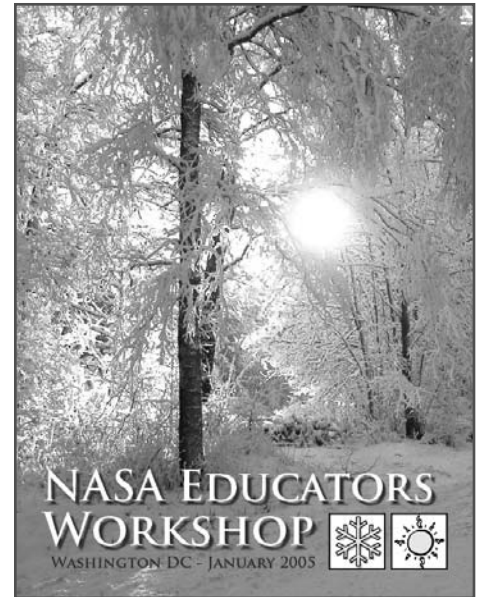
integrate science into the classroom. Another excellent session featured hands on NASA Earth Sun System activities from the creative minds of Charles Mercer and Sallie Smith in GSFC's Education Office.

Afternoon workshops featured STP/MMS Instrument Manager Florence Tan whose commitment to NASA's Education and Public Outreach continues to inspire teachers, students and the general public!

Another presenter engaged the teachers with hands-on activities using Math, Science and Technology to support History and English standards.

At the end of the day, the teachers conducted a poster session to share the successful NASA activities and information they have used with their students.

After a final networking session, the teachers left with new ideas for their classrooms to continue to inspire the next generation as only NASA can!



"The presenter was wonderful – it was a great session!"

"Thank you – my students will love this activity!"

"This presentation was excellent and completely relevant to my work in the classroom"

## AAAS Conference

*4 days of engaging public outreach in Washington, DC!*

On February 18-21st, Education and Public Outreach coordinators from the program and mission offices promoted STP/LWS science information and activities to thousands of conference attendees.

The EPO booth was well situated at the front of the exhibit space and we had the opportunity to interact with most of the educators, students and general public who attended. Other exhibitors included the National Science Foundation, National Science Teachers Association, the National Science Teachers Association and

may other scientific and education focused organizations.

The four day event included a workshop by 5 of the NASA Master Teachers who shared their experiences and successes using NASA science in their classrooms. Another great opportunity to showcase the work our teachers are doing to "Inspire the Next Generation" with all NASA has to offer!



# Que Pasa Puerto Rico

During the week of February 9-13th STP/LWS along with our partner the University of Puerto Rico, Mayaguez hosted 25 individuals from across the country and Puerto Rico. They were a diverse group comprised of teachers, principals, assistant principals, a university professor, outreach partners and a NASA program manager.

The workshop included sessions on global warming, a tour of Arecibo Observatory, a night tour of the bioluminescent bay in Parguera, and a field trip to coral reefs and mangrove ecosystems. We were also fortunate to have Ada Monzon, meteorologist for one of the local television stations give a workshop on High Atlantic Cyclonic Activity in recent years.

Relationships were established, partnerships discussed and most importantly the attendees were able to enhance the work that they do with kids whether they participate in an Institute for the k-16+ community of teachers or students; give a presentation at a community center, museum or planetarium for the general public; or visit a neighboring school to create innovative projects. Below are samples of some of the comments we received from participants in the program.



Good morning and HAPPY VALENTINE'S DAY! I want to send a very special thank-you to you for extending the invitation to me for this spectacular lifetime experience. I will forever cherish every moment. The best part of it all was meeting and bonding with you and the other group members.

Madre M. Mack: Assistant Principal  
Freedom High School, Woodbridge, VA

Dear Evelina,

I appreciate the opportunity to attend the NASA workshop held recently in Puerto Rico. The field trips and workshops inspired me to think about new ways to teach future teachers and in-service teachers about science and the sun-earth connection. We are currently launching a three year project through a partnership of the Springfield Schools, Springfield Science Museum, and Springfield College to address student misconceptions about science. Many of the ideas that I learned through the Puerto Rican experience will have a key place in our work with preservice and inservice teachers.

And, the opportunity to work with some nice folks enriched the experience. I enjoyed meeting Carol Jobe and chatting about our mutual interests in implementing the educational outcomes of the NASA experience in higher education. Special kudos to Mitch Watkins and Yasmin Detres, along with Charles Mercer and Sandra Troche for their efforts to "have the train run on time." Because of their efforts, not only did we learn much, but we had great time.

Thank you,  
Robert (Bob) Barkman, Ph.D.: Professor of Biology-Chemistry and Education  
Springfield College, Springfield, MA

## UPCOMING EVENTS

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**April 14-17**

STP / LWS Master Teacher  
Leadership & Mentor Program  
Charleston, DC

**July 9-17**

STP / LWS Our Star the Sun  
Summer Institute  
Mayaguez, PR

**July 17-22**

STP / LWS Astronomy  
Institute  
Green Bank, WV

**May 30 - August 5**

STP / LWS Engineering and  
Space Science Intern Program  
Greenbelt, MD

**July 25-29**

STP / LWS Follow Up  
Summer Institute  
Washington, D.C.

**August 3-7**

World Council for Gifted and  
Talented Children Conference  
New Orleans, LA

**August 22 -26**

Informal Education and Public  
Outreach Workshop  
Washington, D.C.

**September 19-23**

Technology and Engineering  
Workshop  
Washington, D.C.

**September 30**

Solar School Alliance  
Organization Meeting  
Washington, D.C.

## 2005 STP/LWS Summer Internship Update

This year's campaign to promote the 2005 STP/LWS Summer Internship has been very successful. We promoted the program at (2) big events. The first event was SACNAS (Society for the Advancement of Chicanos & Native Americans in Science) conference in Austin, TX during October 2004. This conference had a focus on showcasing the talents of the best science students of Latin American and Native American ethnicity. There were students from all over the US as well as Puerto Rico. I spoke to over 300 of the country's top physics and engineering students. In February 2005 we went to (4) campuses in Puerto Rico to speak to students aspiring to become NASA interns. In order, we went to University of Puerto Rico-Rio Piedras, University of Turabo, University of Puerto Rico-Mayaguez and Polytechnic University of Puerto Rico. On that trip we spoke to and interviewed over 200 students interested in internships in engineering, physics, education and business.

We also promoted the internship on our very own Stargazers website (<http://stargazer.gsfc.nasa.gov/>), where applicants could apply online. In addition we were on The American Association of Physics Teachers (AAPT) (<http://www.aapt.org/>) and the Society for the Advancement of Chicanos & Native Americans in Science (SACNAS) web site (<http://www.sacnas.org/>). Special promotions were also done at local universities like University of MD, College Park, Howard University, George Washington University and American University. As a result, we received applications from universities like UC-Irvine, Embry-Riddle Aeronautical University (Daytona, FL) and Rensselaer Polytechnic University (Upstate New York). We have over 70 applicants this year!!! We anticipate placing (9) collegiate and (4) high school interns in engineering, physics, education and public outreach and public affairs.

We would like to thank everyone from the staff of STP and LWS who have participated in the success of this program over the years!!!



Now from  
Integrated  
Communications  
Technology, Inc.

The following are the  
members of the  
STP/LWS E/PO ICT team:

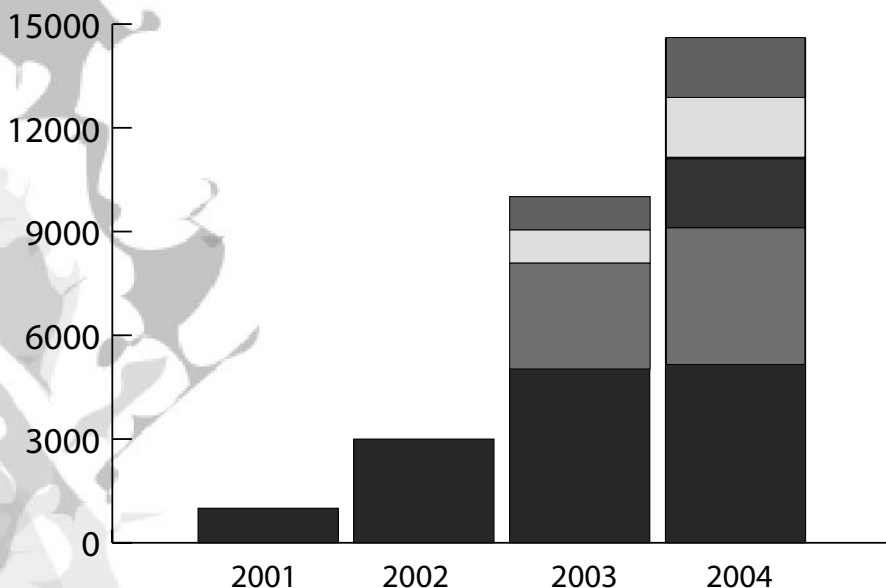
Dr. Evelina Félicité-Maurice  
STP/LWS Education and  
Public Outreach Manager

Laura Madachy  
E/PO Conference Services  
Manager

Mitchell Watkins II  
E/PO Specialist

Omar Eaton  
Informal E/PO Specialist

## Overall Students Reached



Above shows how many students have been reached in the past four years through our various activities. Below is a breakdown of students reached per the individual event.

